

REMARKS

Applicant has received and carefully reviewed the Final Office Action of the Examiner mailed September 25, 2009. Currently, claims 10, 12, 27-30, 32, and 33 remain pending and stand rejected. With this paper, claims 10, 27, and 29 have been amended. Support for the amendments is found in the specification, claims and drawings as originally filed. Favorable consideration of the following remarks is respectfully requested.

Claim Rejections under 35 U.S.C. § 112

Claims 10, 27 and 29 have been rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully traverses the rejection. The Examiner asserts the meaning and definition of any "direct" transition lacks support within the specification. While Applicant does not concede the correctness of the rejection, in the interest of furthering prosecution in a timely manner, independent claims 10, 27, and 29 have been amended to recite "a step-wise transition." Applicant submits clear support for the limitation may be found, for example, at page 9, lines 7-9, which states, "A continuous wire can have a constant diameter across its entire length. A continuous wire can have a diameter that changes along its length. The diameter can vary continuously, or the diameter can vary step-wise." In the context of this application, one of ordinary skill in the art will clearly understand that two embodiments are being described. The transition may be continuous, similar to a ramp, or the transition may be abrupt or step-wise, similar to stairs. It is respectfully asserted "step-wise" is a term that would be readily understood by one of ordinary skill in the art. An accepted definition of step-wise is, "in a steplike arrangement" (<http://dictionary.reference.com/browse/stepwise?r=66>, accessed November 11, 2009). This interpretation of the term in the art is further evidenced by U.S. Patent No. 7,343,659 to Weber et al. Weber et al. disclose a method of making a medical device. Weber et al. state at column 7, lines 3-4, "[t]he portions with different diameters can vary step-wise (FIG. 7)." For the Examiner's convenience, Figure 7 of Weber et al. has been reproduced below:

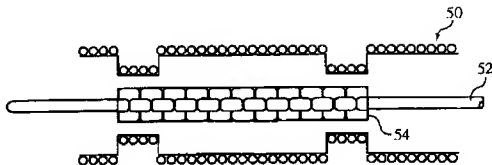


FIG. 7

Figure 7 of Weber et al. clearly shows coil 50 having a first diameter directly transitioning to a second diameter in a step-wise manner as described in the specification. In considering the instant specification, one of ordinary skill in the art would clearly understand what is meant by a step-wise transition. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 10, 27, and 29 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim subject matter which Applicant regards as the invention. The Examiner asserts the term a “direct” transition is broad and does not have a definitive meaning. While Applicant does not concede the correctness of the rejection, in the interest of furthering prosecution in a timely manner, independent claims 10, 27, and 29 have been amended to recite “a step-wise transition.” For at least the reasons discussed above, Applicant respectfully asserts one of ordinary skill in the art will clearly understand what is meant by a step-wise transition. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim Rejections under 35 U.S.C. § 103

Claims 10, 12, 27-30 and 32-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Schoenholtz, U.S. Patent No. 6,203,534, in view of Cohen, U.S. Patent No. 5,330,521 or Klint, U.S. Patent Pub. No. 2002/0074051. Applicant respectfully traverses the rejection.

Schoenholtz, Cohen, and Klint, either separately or in combination, do not teach or suggest the device as currently claimed. For example, none of the above cited references teach or suggest “wherein each of the continuous wires of the reinforcing braid layer includes a step-

wise transition from the distal diameter of each of the continuous wires to the proximal diameter of each of the continuous wires,” as currently claimed in independent claim 10. Independent claims 27 and 29 recite in part, “wherein each of the continuous wires of the reinforcing braid layer includes a step-wise transition from the first diameter of each of the continuous wires to the second diameter of each of the continuous wires.” In formulating the rejection, the Examiner states, “Schoenholtz meets the claim limitations as described above except for the distal and proximal braided section having a decreasing cross sectional area.” The Examiner relies on Cohen or Klint to provide the missing claim limitation.

Neither Cohen nor Klint teach or suggest each of the continuous wires of the reinforcing braid layer includes a step-wise transition from the distal diameter of each of the continuous wires to the proximal diameter of each of the continuous wires as currently claimed. As discussed above, a step-wise transition is considered as one that transitions in the manner of steps, or analogously, stairs. Moreover, as can be seen in Figures 5 and 5A of the present application, the transition from the first proximal diameter to the second distal diameter occurs in less than one winding of the coil. Neither Cohen nor Klint teach or suggest a transition in the diameter occurs in less than one winding of the coil. In the advisory action, the examiner notes an additional definition of step wise: “to increase or decrease in stages,” and asserts that “the gradual taper of the Cohen or Klint each show an incremental or staged decrease over the length and therefore reflect a stepped transition under the definition provided.” Applications respectfully disagree with this misinterpretation of the definition. When increasing or decreasing in a step-wise manner, the stages have to be discrete or quantum. If the transition is a continuous smooth transition, it is not a step-wise transition as one of skill in the art would understand the term. A flight of stairs is a step-wise transition from one floor to the next; it is a staged increase from one floor to the next. A ramp would not be a step-wise transition from one floor to the next; because the ramp is smooth it lacks stages.

Further, claim 10 recites “wherein the proximal diameter of each of the continuous wires is constant throughout the proximal braid section and the distal diameter of each of the continuous wires is constant throughout the distal braid section. Claim 10 also recites “wherein the transition occurs in less than one revolution of the wire.” None of the cited art discloses a continuous wire having two constant diameter sections with a transition between the two constant diameter sections that occurs in less than one revolution of the wire.

For at least the reasons set forth above, Schoenholtz does not teach each and every element of independent claims 10, 27, and 29. Cohen and Klint do not teach what Schoenholtz lacks. Thus, even if one were to combine Schoenholtz and Cohen or Klint, one would not arrive at the device as claimed. Furthermore, there is no motivation for one of ordinary skill in the art to modify Schoenholtz, Cohen or Klint to achieve the device as claimed. Applicant submits that claims 12, 28, 30, 32 and 33 are also in condition for allowance as they depend from one of claims 10, 27 and 29 and they add significant limitations to further distinguish them from the prior art.

Conclusion

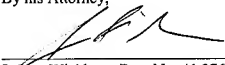
Reexamination and reconsideration are respectfully requested. It is respectfully submitted that all pending claims are now in condition for allowance. Issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Pu Zhou

By his Attorney,

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J. Scot Wickhem, Reg. No. 41,376
CROMPTON, SEAGER & TUFTE, LLC
1221 Nicollet Avenue, Suite 800
Minneapolis, MN 55403-2420
Telephone: (612) 677-9050
Facsimile: (612) 359-9349